

West Knight Street Bridge
Spanning Spring Brook (West of Knight Street)
Eaton Rapids
Eaton County
Michigan

HAER No. MI-7

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PHOTOGRAPHS

HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D. C. 20240

HISTORIC AMERICAN ENGINEERING RECORD

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West Knight Street Bridge

MI-7

Location: Spanning Spring Brook at West Knight Street, 350 feet west of Main Street, Eaton Rapids, Eaton County, Michigan

Date of Construction: Nameplate - 1893, placed 1894. Rehabilitated 1929, 1951, 1966.

Present Owner: City of Eaton Rapids
• 206 S. Main Street
Eaton Rapids, Michigan 48827

Present Use: Vehicular and pedestrian bridge.

Significance: The West Knight Street Bridge is one of only two known highway bridges built in Michigan by Canton Bridge Company, Canton, Ohio, one of the nation's leading bridge building firms and a pioneer in truss bridge technology. It is above-average in length for a Pratt truss of that era, possesses a walkway on one side, and decorative work on its portals.

Historical Report prepared by: Dennis O. Craun, June, 1982

Transmitted by: Jean P. Yearby, HAER, 1984

Description of Structure

The West Knight Street Bridge is a pin-connected Through Pratt Truss 127' 8" long by 23' 0" high (c-c of pins) and 19' 3" wide (c-c of trusses). A 6' 0" wide sidewalk is located on the outside of the south truss supported by cantilever frames from floor beams. The abutments are stone masonry reinforced with concrete walls placed at some unknown time in front of the abutments.

When erected in 1894, the present bridge replaced an unknown type of bridge and provided a better means of access to the Eaton Rapids business district from residential and agricultural areas west of Eaton Rapids.

Historical Narrative

Direct quotations from the minutes of the Common Council - City Council proceedings¹ and from the "Eaton Rapids Journal"² describe what is known of the history of the bridge.

"Eaton Rapids Journal", August 4, 1893:

At a special meeting of the common council on Thursday morning, the bridge on West Knight Street was condemned as unsafe and ordered closed. Work of repairing the same was commenced, but it was found in such a completely worn out condition that it was discontinued pending a decision as to whether a new bridge should be built.

Common Council Minutes, August 29, 1893:

Alderman Amdursky Chairman of the Street Committee Reported that he had had the West Knight Street Bridge examined by competent judges and that it would not be practical to repair said bridge and recommended that the Council take immediate steps toward the construction of a new Iron bridge.

By Alderman Fairfield that the report of the Committee be accepted and that the City advertise for letting the job. Bids to be received on or before the 12th day of September and that bids for same be opened at 2 o'clock p.m. at the Council rooms on the 12th day of September, 1893. Carried.

By Alderman Fairfield that the matter of building the abutments for the new bridge be left with the Street Committee with power to act. Carried.

Common Council Minutes, September 12, 1893:

Moved by Alderman Fairfield that the representatives of the several bridge companies present be given 5 minutes each to describe their different plans for a new Iron bridge across the mill pond on West Knight Street. Carried.

The bridge builders drew lots and in the order in which their numbers were called opened their bids and explained the same to the Council.

By Alderman Bentley. That the matter of awarding the contract for bridge be laid over until the next regular meeting. The Ayes and Nays were called. Aldermen Crawford, Fairfield, and Woodruff voting Nay. Aldermen Webber, Amdursky, and Bentley voting Aye. The Mayor dissolved the tie by voting Nay.

By Alderman Crawford. That a one span bridge be contracted for. Carried.

By Alderman Fairfield. That a bridge with an 18 foot roadway be built. Carried.

By Alderman Amdursky. That the recorder read each bid for a one span bridge. Carried.

The bids being read were as follows

Variety Iron Works	(16 foot roadway)	120 foot span	2035
Detroit Bridge Works	(16 foot roadway)	120 foot span	2800
Detroit Bridge Works	(16 foot roadway)	120 foot span	1785
Jackson Bridge Company	(16 foot roadway)	120 foot span	2800
Jackson Bridge Company	(16 foot roadway)	120 foot span	2570
R. D. Wheaton Company	(18 foot roadway)	130 foot span	2359
Canton Bridge Company	(16 foot roadway)	120 foot span	2500
Massillon Bridge Company	(16 foot roadway)	120 foot span	2995

By Alderman Bentley. That the contract for erecting the bridge be let to R. D. Wheaton and Company. Their bid being the lowest considering the quality of Bridge. The structure to be built according to the proposal and specifications presented and now in the hands of the City Recorder. That R. D. Wheaton and Company furnish a bond in the penal sum of \$4000 for the faithful performance of the contract within 90 days from the date of signing the contract. Price of the bridge complete to be \$2,178.00 for a 120 foot span. The Ayes and Nays were called. Ayes. Aldermen Crawford, Webber, Fairfield, Amdursky, Woodruff and Bentley. Nays none.

"Eaton Rapids Journal", September 15, 1893:

The contract was let for the new steel bridge over the mill pond on West Knight Street at a meeting of the common council on Tuesday. Out of nine competing companies, R. D. Wheaton and Co., of Chicago, got the contract for \$2,178. The bridge called for is a steel bridge of one span 120 feet in length, 18 feet for roadway, 6 feet sidewalk on each side, joints and roadway to be of oak. The stone abutments will probably cost from \$300 to \$500 extra and will be finished in 30 days, the bridge to be in position by December 15. The structure will be a most substantial one and will be a great ornament as well as a permanent improvement to that part of the City.

Common Council Minutes, September 21, 1893:

The bond of R. D. Wheaton and Company as principal and Wm. Smith and Robert D. Wheaton as sureties in the sum of Four-thousand (\$4,000) was accepted.

Common Council Minutes, September 26, 1893:

By Alderman Crawford. That we do not procure steel joice for the new bridge on West Knight Street. The yeas and nays being called for the vote resulted as follows. Yeas. Aldermen Crawford, Amdursky. Nays. Aldermen Fairfield, Webber, Woodruff, and Bentley.

Common Council Minutes, October 19, 1893:

The Chairman of the Street Committee reported that the abutments to the bridge had been completed. 413 perch in all amounting to \$1,032.50, less the \$113.15 owned by the City making due Richard Smith - \$919.35 and recommended that an order be drawn for \$169.35 payable at once and an order for \$750.00 due on or before January 1, 1894. On motion by Alderman (blank) the Street Committee report was accepted and adopted.

Common Council Minutes, December 26, 1893:

By Alderman Fairfield, that the Street Committee be authorized under advice of the City Attorney to communicate with the R. D. Wheaton Company and to notify them that by provision of the contract now existing with such company the order for bridge for West Knight Street be countermanded except upon the following terms. For each day after December 28, 1893, a reduction of \$5.00 per day be made from the contract price of such bridge until such time as said bridge be placed in position, be completed and ready for travel. Carried.

Common Council Minutes, January 9, 1894:

By Alderman Bentley, that the legal notice from the Canton Bridge Company be put on file for future reference. Carried.

Common Council Minutes, January 16, 1894:

The Mayor stated that the object of the meeting was to take some action

in regard to the new bridge that had been ordered and said that R. D. Wheaton was present and would state the case. The matter was discussed by Mr. Wheaton, City Attorney Markham and the Aldermen at some length with no definite understanding. A motion to declare the contract not fulfilled was lost. R. D. Wheaton said he was going to build a bridge.

"Eaton Rapids Journal", February 9, 1894:

The planking is being laid on the West Knight Street Bridge and before the end of this week the elegant structure will be ready for passage. It looks as if there would be a law suit between the Canton Bridge Co. and R. D. Wheaton before the question of who receives pay for the bridge is settled. But the City will undoubtedly accept the structure and when the time comes to pay for it will have a reduction of \$200 or \$300 from the contract price on account of the annoying delay.

Common Council Minutes, February 14, 1894:

Alderman Amdursky, Chairperson of the Street Committee, submitted the following report.

In the matter of the contract with R. D. Wheaton and Company, for the building of a bridge on West Knight Street, your committee would respectfully report as follows. That we have examined the bridge and find it in accordance with the contract with R. D. Wheaton and Company and recommend that the same be accepted at the contract price, less a reduction of Five \$5.00 dollars per day since December 29, 1893 to February 14, 1894, in accordance with a resolution adopted at a meeting of the Common Council on the 26th day of December, 1893; of which the said R. D. Wheaton Company has had due notice. Further your committee would recommend that owing

to the existance of a disagreement between R. D. Wheaton and Company and the Canton Bridge Company of Canton, Ohio, as to who should be entitled to the pay therefor, that payment of the same be deferred until such time as this Common Council may learn to whom the same may be legally paid in order to protect the interest of the City of Eaton Rapids. All of which is respectfully submitted. Dated February 14, 1894

s/ S. Amdursky
M. D. Crawford Street Committee
E. F. Woodruff

By Alderman Fairfield that the report of the Street Committee be accepted and adopted. Carried.

"Eaton Rapids Journal", February 16, 1894:

The new bridge is open for traffic.

The City will get a reduction of \$240 from the contract price of the West Knight Street Bridge, which is \$5 a day for the time from December 28 last, the contract time for completion of the bridge. The net cost will thus be \$2,498 for the structure.

Common Council Minutes, April 10, 1894:

By Alderman Hamilton:

That the Circuit Court summons served on the City by the Sheriff to appear in the court room of the City of Charlotte on the 1st day of May, 1894 to answer unto the Canton Bridge Company in a plea of trespass, to its damages, Five thousand dollars, which shall then and there be made to appear, be laid on the table. Carried.

Common Council Minutes, May 3, 1894:

In relation to the suit brought by the Canton Bridge Co. against the

City of Eaton Rapids growing out of the construction of the iron bridge on West Knight Street, the same having been erected pursuant to a contract made with R. D. Wheaton and Co. I hereby offer to assume the entire defense of such action and fully indemnify the City against any judgment and costs of suit resulting in such action and agree to pay any judgment and costs of suit obtained in any suit brought by the Canton Bridge Company to collect for the construction of such bridge and herewith present a bond in favor of the City for such purpose. Upon condition that payment be made to me for the bridge according to the contract and that the Common Council pass a resolution authorizing me to assume the defense of such action and all actions brought against the City by the Canton Bridge Company or its assigns to collect for the construction of this bridge. A reduction to be made from the contract price according to a resolution passed by the Common Council December 26, 1893.

Yours respectfully,

s/ R. D. Wheaton

The indemnity bond of R. D. Wheaton as principal in the sum of Five Thousand (\$5,000.00) with Wm. Smith of Eaton Rapids City and Albert Murray of City of Charlotte as sureties was presented.

Moved by Alderman Fairfield and supported by Alderman Hamilton that the following resolution be accepted and adopted.

Resolved. That the proposition of R. D. Wheaton to defend the City of Eaton Rapids at his own expense and pay any judgment and costs obtained against the City in any suit brought by the Canton Bridge Company against the City, either now pending or to be brought hereafter, be accepted. And the indemnity bond given by him for the protection of the City against damage and costs be also approved,

accepted, and placed on file by the recorder. And that the recorder is hereby authorized to draw the proper order in favor of R. D.

Wheaton and Company for two-thousand four-hundred and ninety eight (\$2,498.00) for the construction of the bridge on West Knight Street according to contract, and deliver the same to R. D. Wheaton and that said R. D. Wheaton be hereby authorized to defend the City in all actions commenced by the Canton Bridge Company to collect for the bridge built upon West Knight Street.

The yeas and nays being called for, the vote resulted as follows. Yeas. Aldermen Jenne, Fairfield, Adams, Woodruff. Nays. Aldermen Crawford, Hamilton. Resolution accepted and adopted.

"Eaton Rapids Journal", February 22, 1929:

City to Repair Knight Street Bridge

Contracts for repairs to the West Knight Bridge have been let to a bridge company at Flushing and the work will be rushed, according to Mayor John B. Davidson. The structure is now said to be very unsafe for heavy loads. Material will be on the ground in thirty days and it is specified in the contract that the repairs will be completed by May 1.

Cash will be paid for the work, it is reported, and the City, therefore, will get a big discount on the bill. The capacity of the bridge when rehabilitated will be sufficient to allow two steady streams of ten-ton trucks, running both ways, to pass on it.

City Council Minutes, March 4, 1929:

On motion by Commissioner Whittum the Mayor was authorized to make a contract with the Perkins Bridge and Supply Co. for rebuilding the West Knight Street Bridge for \$4,835.00

"Eaton Rapids Journal", March 10, 1929:

W. Knight Street Bridge Opened

The bridge on West Knight Street, which has been undergoing repairs for several weeks past, was opened to traffic on Wednesday of this week, a little later than was first calculated, but unfavorable weather interfered somewhat with the program of the work. City Engineer Laird says that the job has been done in a skillful and substantial manner. An outline of the many improvements made is given:

At four end posts cut off and spliced and new bearing shoes put on; new expansion rollers placed; new curtain walls; plates riveted to top and bottom of floor beams; five additional lines of floor stringers placed; three vertical posts spliced; bridge lined up and portal and sway bearing straightened; old sidewalk brackets removed from north side and used to replace those on south side; new creosoted pine floors on sidewalk and roadway; four lines of steel tread laid; bridge scraped and painted. The city has made the sidewalk and pavement grades conform to the new bridge level and repaired the old concrete walks.

City Council Minutes, January 22, 1951:

Moved by Commissioner Benjamin and supported by Commissioner Munn that the contract for repairing the West Knight Street Bridge be awarded to Ruckman-Hansen, Inc., of Fort Wayne, Indiana, for \$8,646.71, account being the lowest bidder. Motion carried.

"Eaton Rapids Journal", January 25, 1951:

Contract Let for W. Knight Street Bridge

The City of Eaton Rapids has awarded the contract for the reconstruction of the West Knight Street Bridge, with the exception of the chords at the top of the bridge (or arch). These chords will be capped against moisture,

and the reconstruction plans will include new floor beams and repainting. The sum of \$8,646.71 has been allotted to Ruckman-Hansen, Inc. of Fort Wayne, Ind., for the iron and steel for the job, the City furnishing the floor beams. Construction will start as soon as materials are available.

City Council Minutes, April 4, 1966:

Councilman Hall moved that we employ G. J. McLravy and Sons, Inc., to draw plans and specifications and to supervise the rebuilding of the West Knight Street Bridge. Councilman Alt seconded the motion. Motion carried unanimously.

City Council Minutes, May 23, 1966:

Councilman Hall, supported by Councilman Alt, moved to accept the bid of P. E. Mason in the amount of \$10,521.50 for repair of the West Knight Street Bridge. Motion carried unanimously.

"Eaton Rapids Journal", July 28, 1966:

Bridge "Out" for a month.

City Superintendent Harry Bailey expects the West Knight Street Bridge to be undergoing repairs for at least another month. After chipping, brushing, and repainting, the structure now is ready for steel workers to install a new deck.

"Eaton Rapids Journal", October 6, 1966:

Bridge is open.

Would you believe that W. Knight Street Bridge is open as of last Friday...? Only a month after contractors promised it. The City crew closed the south sidewalk temporarily Monday to lengthen the approach from the West so it would not be so steep.

City Council Minutes, January 22, 1979:

Councilman Reagan moved Council authorize the submittal of an application to the State of Michigan for the replacement of the West Knight Street Bridge under the critical bridge program, seconded by Councilman Kirkpatrick, passed unanimously.

1. Common Council-City Council Minutes, originals filed at the City Clerk's Office, 206 S. Main Street, Eaton Rapids, Michigan 48827.
2. "Eaton Rapids Journal", a weekly newspaper published by the Journal Publishing Company, microfilm copies filed at the Eaton Rapids Public Library, 220 S. Main Street, Eaton Rapids, Michigan 48827